

**IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE**

Appl. No. : 10/567,179  
Applicant(s): Ingo Speier  
Filed: May 22, 2008  
TC/A.U.: 2800/28335  
Examiner: Courtney L. Smith  
Atty. Docket: 010516 US2  
Confirmation No.: 6740  
Title: THERMALLY AND ELECTRICALLY  
CONDUCTIVE APPARATUS

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In connection with the Notice of Appeal filed concurrently, Applicants respectfully request reconsideration of the application in light of the following remarks.

**This paper includes** (each beginning on a separate sheet):

**1. Remarks/Discussion of Issues;**

## **1. REMARKS / DISCUSSION OF ISSUES**

Claims 1-18 are pending in the application.

### **Rejections under 35 U.S.C. § 102**

Claims 1-7 and 10-15 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by *Schick* (U.S. Patent Application Publication 20060261470; now U.S. Patent 7,505,268).

For at least the reasons set forth below, Applicants respectfully submit that all claims are patentable over the applied art.

At the outset Applicants rely at least on the following standards with regard to proper rejections under 35 U.S.C. § 102. Notably, a proper rejection of a claim under 35 U.S.C. § 102 requires that a single prior art reference disclose each element of the claim.<sup>1</sup> Anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference.<sup>2</sup> Alternatively, anticipation requires that each and every element of the claimed invention be embodied in a single prior art device or practice.<sup>3</sup> For anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention.<sup>4</sup>

#### **a. Claim 1**

Claim 1 recites:

*A thermally and electrically conductive apparatus to which one or more electronic devices can be operatively connected, the apparatus comprising:*

*a) **a thermally conductive element** in thermal contact with the one or more electronic devices; **and***

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<sup>1</sup> See, e.g., *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983).

<sup>2</sup> See, e.g., *In re Paulsen*, 30 F.3d 1475, 31 USPQ2d 1671 (Fed. Cir. 1994); *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990).

<sup>3</sup> See, e.g., *Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992).

<sup>4</sup> See, e.g., *Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991).

*b) a multilayer coating system comprising three or more layers, said three or more layers being a sequence of electrically insulating and electrically conductive layers integrally formed on a portion of the thermally conductive element, said electrically conductive layers providing one or more paths for supplying electric current to the one or more electronic devices.*

In a representative embodiment described in connection with Fig. 1a of the filed application, a multilayer coating system comprising alternating electrically conductive layer 103 and electrically insulating layers 102, 104 is integrally formed on a portion of the thermally conductive element 101 (kindly refer to paragraph [0043] and Fig. 1a of the filed application for details of this representative embodiment).

Applicants respectfully submit that the applied art fails to disclose at least the featured multilayered coating system comprising three or more layers integrally formed on a portion of the thermally conductive element as specifically recited in claim 1. In rejecting claim 1, the Office Action directs Applicants to the evaporator portion 416 of *Schick* for the alleged disclosure of the thermally conductive element. The Office Action directs Applicants to Fig. 4 of *Schick*, and specifically to paragraphs [0040] and [0050] for the alleged disclosure of a multilayered coating system set (see page 2 of the Office Action). Applicants respectfully submit that there is no disclosure of such a multilayer coating system as specifically recited in claim 1.

Notably, paragraph [0040] of *Schick* describes that the evaporator portion (e.g., evaporator portion 416) can be **coated** with **thermally conductive material or a non thermally conductive dielectric material** that can be **patterned** with **electrical traces**. Thus, there is no disclosure of a **multilayer coating system including three or more layers** in the sequence specifically recited in claim 1, but rather a dielectric layer with **patterned electrical traces**.

In response to Applicants Arguments, the Office Action states:

“It should be noted that Detailed Description 0040 explicitly discloses a dielectric material patterned with electrical traces coating an evaporator portion (thermally conductive element—416-Fig.4) and thus the applicant shall hereby be without a doubt that an electrically insulating dielectric material patterned with electrical trace(s) constitutes a multilayer coating of at least three layers.”

Again, rather than a **multilayer coating system including three or more layers**, *Schick* discloses an evaporator portion (e.g., evaporator portion 416) can be **coated** with **thermally conductive material or a non thermally conductive dielectric material** that can be **patterned** with **electrical traces**. *Schick* is clearly deficient of the teachings of at least one feature in a rejection for anticipation. This represents **clear error** in the rejection of claim 1.

Paragraphs [0048] and [0049] of *Schick* describe the materials that can be used as the substrate of the **housing** (e.g., housing 410). Notably, these materials are thermally conductive. Finally, paragraph [0050] of *Schick* describes how the substrate can be made of a metal with thermally conductive properties. Paragraph [0050] does describe that the **substrate may be coated with a dielectric for electrical isolation** of the light-emitting elements; and that **electrical traces can be deposited on the dielectric** to allow electrical conductivity. Applicants again respectfully submit that there is no disclosure of the **multilayer coating system comprising three or more layers** in the sequence as specifically set forth in claim 1. This represents **clear error** in the rejection of claim 1.

The Office Action directs Applicants to paragraphs [0042] and [0044] of *Schick*, stating (with emphasis in original):

**“Detailed description 0042 & 0044 further discloses primary and secondary LEDs that constitutes two electrical trace layers isolated by at least one dielectric insulating layer.”**

The Office Action relies on the evaporator portion 416 of *Schick* for the alleged disclosure of the thermally conductive element (See page 2 of the Office Action). Assuming *arguendo* but not conceding that the evaporator portion 416 can be so relied upon, Applicants note that the LEDs are also seemingly substituted for the alleged teachings of the thermally conductive element in the rejection.

Applicants again respectfully submit that two different elements, the evaporator portion 416 and the primary and secondary LEDs, are both seemingly relied upon for the alleged disclosure of the thermally conductive element. Applicants again respectfully submit that the **two different elements** disclosed in the applied art cannot be properly

relied upon for the teachings of one element of a claim. This is wholly illogical and improper. This represents **clear error** in the rejection of claim 1.

For at least the reasons set forth above, Applicants respectfully submit that the applied art fails to disclose at least one feature of claim 1. Therefore, Applicants respectfully submit that a *prima facie* case of anticipation has not been established and claim 1 is patentable over *Schick*. Furthermore, claims 2-7 and 10-15, which depend immediately or ultimately from claim 1, are patentable for at least the same reasons and in view of their additionally recited subject matter.

## **II. Rejections under 35 U.S.C. § 103(a)**

The rejection of claims 8-9 and 16-18 in the alternative under 35 U.S.C. § 103(a) has been considered. While Applicants in no way concur that the rejection is proper, claims 8-9 and 16-18 depend from claim 1 immediately or ultimately, and are patentable for at least the reasons set forth above and in view of their additionally recited subject matter.

## **Conclusion**

In view the foregoing, applicant(s) respectfully request(s) that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance.

If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted on behalf of:  
Phillips Electronics North America Corp.

/William S. Francos/

by: William S. Francos (Reg. No. 38,456)

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